

REMARKS

This paper is intended to be a complete response to the above-identified Office Action. It is believed no fee is due. If fees are required, however, the Commissioner is authorized to deduct the necessary charges from Deposit Account 501922/149-0168US.

Claims 1, 17, 28, 43 and 58 have been amended. No claims have been added and no claims have been cancelled. Accordingly, claims 1-72 are currently pending in the instant patent application.

Section 112 Formalities

The Examiner has rejected claims 11, 12, 25, 26, 37, 38, 53, 54, 67 and 68 under 35 U.S.C. 112, second paragraph, as allegedly failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. Specifically, the Examiner asserts that:

Claim 11, line 2, recites "inserting the previously deleted [or unloaded] identified overflow row into the source table" which causes said claim to be vague and indefinite because claim 11 seems to negate the result in claim 1 ... The same issue is present in claims 25, 37, 53, and 67. Claims 12, 26, 38, 54, and 68 are rejected for being dependent from claim 11, 25, 37, 53, or 67. Office Action at pg. 2, ¶¶ 2-4.

The Examiner appears to misunderstand the described and claimed technology. As pointed out by Applicant in paragraph 3 of the Specification (final two sentences), an overflow row is a row whose data is distributed across two or more pages. As further pointed out by Applicant at paragraph 6 of the Specification, the act of deleting an overflow row removes the row's data from each of these multiple pages, while the act of re-inserting the row causes the row to be loaded back into the table *on a single page*. Thus, the acts of deleting and reinserting an overflow row are not "at odds" as alleged by the Examiner, but rather accomplish the claimed overflow row repair operations. In light of these remarks, it is respectfully requested that the Examiner withdraw the section 112 rejections.

Section 102 Rejections

The Examiner has rejected claims 1-6, 14-20, 27-30, 39-48, 55-60 and 69-72 as allegedly being anticipated under 35 U.S.C. 102(b) by the publication entitled "A method for on-line reorganization of a database" by G. H. Sockut, IBM Systems Journal, Vol. 36, No. 3, 1979 (hereinafter "Sockut"). Specifically, the Examiner asserts that:

In regard to claim 1, Sockut discloses an overflow row repair method, comprising: Retrieving a page of memory associated with a source table (page 4, paragraph 7, especially, "the table space or partition on which reorganization operates", and page 11, lines 1-39, especially, "scanning the file pages ..."); Interrogating the page of memory to identify an overflow row (page 11, lines 1-39, especially, "we find a ... overflow record"); Unloading the identified overflow row from the source table (page 11, lines 1-39, especially, "unloading..."); Deleting the identified overflow row from the source table (page 1, Abstract etc., and page 4, 6th paragraph, especially, "removes overflow ...", and pages 9-10, Table 2); and Loading the previously unloaded identified overflow row into the source table (page 11, lines 1-39, especially, "Reloading of data ..."). Office Action at pg. 2-3, ¶¶ 8-15.

The Examiner levels the same rejection at the remaining independent claims (17, 28, 43 and 58). Regarding independent claims 17 and 43, see Office Action at pg. 4, ¶ 14. Regarding independent claims 28 and 58, see Office Action at pg. 4, ¶ 15.

Sockut describes a reorganization technique in which "the area being reorganized is unloaded ... the unloaded data are sorted by clustering key, and the data are reloaded into a new copy of the area. The new copy is then brought up to date ... by applying log entries ... Future access by users is then switched to the new (reorganized) copy of the area. Figure 4 shows the main steps of fuzzy reorganization."¹ Sockut at page 5, 1st full ¶.² See also, Sockut at pg. 1, Abstract and pg. 2, 2nd ¶. Where Sockut

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- 1 As is common in the art, Sockut defines a table space as "a region of storage that stores the data records for one or more tables." Sockut at pg. 2, 9th ¶. Also as common in the art, Sockut describes a partitioned table space as one in which the table space ... [is divided] ... into partitions according to values of the indexed key ... Partitions reside in separate files, whereas a nonpartitioned table space can reside in one file." Sockut at pg. 4, 1st ¶.
 - 2 All references to Sockut refer to page and paragraph numbers in that copy provided to Applicant by the Examiner in the Office Action dated 26 December 2006.

uses "the term area being reorganized (often shortened to just area) to mean the table space or partition on which reorganization operates." Sockut at page 4, 7th ¶ (emphasis added). Sockut explicitly and repeatedly relies upon the fact that entire tables, table spaces or partitions are unloaded *en masse*. See, for example, Sockut at pgs. 1 (Abstract), 2 (2nd ¶), 4 (7th ¶), 5 (1st, 3rd and 4th full ¶), 6 (1st and 7th full ¶), 10 (7th ¶), 11 (1st ¶), Figs. 4 and 6.

In this regard (*i.e.*, the unloading of complete tables or partitions), Sockut operates as described by Applicant in the filed Specification's 'Background' section. Specification at ¶ 6 and Fig. 1. That is, Applicant identifies and describes prior art overflow reformation techniques that (1) unload a complete table space, table or partition, (2) reloads the data into a new copy of the table space, table or partition and (3) replaces the old table with the new table.

In contrast to Sockut, the claimed invention unloads only rows identified as overflow rows from an area (*i.e.*, a table space, table or partition). At no time does Sockut teach, describe or fairly suggest any means, method or technique to perform this action. Sockut is silent as to the claimed act of unloading only those rows identified as overflow rows.

As filed, each independent claim recited unloading one or more identified overflow rows (*i.e.*, the act of unloading the entire table space, table or partition was expressly *not* claimed). However, to make this point more obvious, Applicant has amended independent claims 1, 17, 28, 43 and 58 to recite only the identified overflow rows are unloaded.

For at least the reason that Sockut fails to teach each recited element of the claimed invention, the Examiner has failed to make a legitimate *prima facie* case of anticipation. Accordingly, Applicant respectfully requests that the Examiner withdraw these rejections and pass independent claims 1, 17, 28, 43 and 58 to allowance. For at least the same reasons, claims 2-6, 14-16, 18-20, 27, 29, 30, 39-42, 44-48, 55-57, 59, 60 and 69-72 (each of which depend from one of independent claims 1, 17, 28, 43 and 58) are allowable over Sockut. Such action is respectfully requested.

Section 103 Rejections

The Examiner has rejected claims: 7, 21, 31, 32, 49 and 61 (Office Action at pg. 5, ¶ 18); 8, 9, 11, 12, 22, 24-26, 33, 34, 37, 38, 50, 51, 53, 54, 63, 64, 67 and 68 (Office Action at pg. 6, ¶ 21); 10, 23, 36, 52 and 66 (Office Action at pg. 8, ¶ 26); and 13, 35 and 65 (Office Action at pg. 9, ¶ 29) as being unpatentable over Sockut as applied to claims 1-6, 14-20, 27-30, 39-48, 55-60 and 69-72 and further in view of one or more secondary references.

Each claim rejected under section 103 is a dependent claim. Each of these claims are allowable for at least the same reasons as are independent claims 1, 17, 28, 43 and 58 (see discussion above). Accordingly, Applicant respectfully requests that the Examiner withdraw these rejections and pass all claims to allowance.

CONCLUSIONS

Reconsideration of pending claims 1-72 in light of the above remarks and amendments is respectfully requested. If, after considering this reply, the Examiner believes that a telephone conference would be beneficial towards advancing this case to allowance, the Examiner is strongly encouraged to contact the undersigned attorney at the number listed.

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